

October 22, 2001 reply, there is only one invention with several embodiments and preferred embodiments described in the specification and by the amended claims.

In light of the examiner's phone call in April, it is understood that we have been asked to present a composition which exemplifies the generic claim and which is searchable by the examiner. In the previous reply, structures for the two main components of claim 1 were identified/selected as well as a structure for the preferred embodiment having a third molecular component. This overall structure was used to locate several related patent references within the PTO base, one of which predated the filing date of the current invention.

To comply with the requirements of 37 CFR § 1.143 to provide an example covered by the basic independent claim, the parachute structure is a sugar/aminosugar residue e.g. glucosamine bonded to a trifunctional branching unit e.g. triazine trichloride or trimesinic acid trichloride. The therapeutic component can be a photosensitizer or a chemotherapeutic drug. Choosing the photosensitizer as the first example, it is a porphyrin, pheophorbide, bacteriopheophorbide, chlorin, bacteriochlorin, or a purpurin structure. These structures are substantially equivalent in the way they function as photosensitizers forming spectroscopically similar active excited states. As an example for the chemotherapeutic drugs which are membrane active drugs, Merphalene is a good example. In the case of the preferred embodiment with a third component, namely a spacer, the latter structure is selected as a poly-aminoacid, a beta-aminoacid or a gamma-aminoacid.

As noted in the earlier reply the following set of references were obtained from the US PTO patent base based on the selected example structure(s): U.S. Patent No. 5,502,037 to Kondratyev; U.S. Patent No. 6,287,857 to O'Riordan et al.; U.S. Patent No. 6,245,359 to Milstein et al.; U.S. Patent No. 6,169,078 to Hughes et al.; and, U.S. Patent No. 6,300,3198 to Manoharan. Only Kondratyev predates the filing of the present invention. The October 22, 2001 reply summarized these patents and differentiated them from the present invention.

Note that none of these prior art references discuss the use of molecular structures to externally anchor while internally localizing a therapeutic compound with respect to a cell wall/membrane. None of the prior art discloses the use of a complex having a parachute structure

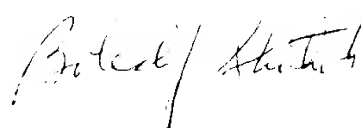
as a delivery and positioning device. The present invention is neither anticipated by nor made obvious in view of this prior art.

In case the examiner is still having difficulty in grasping the example structure for the claim 1 invention, the above definition identifies a diglucosamine bonded through a trimesinic structure to a bacteriopheophorbide [parachute structure], or a chlorin, photoactive structure [therapeutic compound].

With these remarks it is believed that the requirements of 35 USC, 37 CFR and the MPEP have been answered and the disclosure and claims are now in condition for examination as one whole invention. Consideration is respectfully requested. An early and favorable response is earnestly solicited. Thank you.

Respectfully submitted,

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